What is Claimed is:

1. A coordinatable system of inclined geosynchronous satellite orbits, comprising:

a plurality of satellite positions representing the maximum number of satellites that may be included in the coordinatable system of inclined geosynchronous satellite orbits to achieve optimum satellite coverage during a specified period within a specified service area;

each satellite position being located in one of a plurality of satellite orbits forming one of a plurality of families of satellite orbits;

each of the plurality of satellite orbits within any one of the plurality of families of satellite orbits defining an orbital plane having a unique inclination with respect to the equatorial plane of the Earth and with respect to the orbital plane of any other one of the plurality of satellite orbits within the same family of satellite orbits;

the plurality of satellite orbits within any one of the plurality of families of satellite orbits having identical apogees;

loci of subsatellite points repeatedly traced upon the surface of the Earth by a straight line extending from the center of the Earth to an orbiting satellite position generating an imaginary ground track on the surface of the Earth;

the ground track traced by orbiting satellite positions within any one of the plurality of families of satellite orbits defining an area therewithin that differs from the area defined within the ground track traced by orbiting satellite

positions within any other family of satellite orbits;

the ground tracks being mutually and generally symmetrically nested about a first longitude of symmetry to form a first set of ground tracks; and

the satellite positions within each of the plurality of families of satellite orbits being coordinated with each other and being further coordinated with the satellite positions to achieve a minimum specified angular separation between satellites occupying the plurality of satellite positions and using the same frequencies.

2. The system of claim 1, wherein the eccentricity of each satellite orbit is high enough with respect to the inclination thereof so that a ground track traced by orbiting satellite positions within each family of satellite orbits does not cross itself.

3. The system of claim 2, wherein each of the plurality of satellite orbits is configured to position the maximum latitude of the ground track traced by orbiting satellite positions within each family of satellite orbits at a specified longitude.

4. The system of claim 3, wherein the satellites in each of the plurality of families of satellite orbits are coordinated so that they are equally spaced in time.

5. The system of claim 4 further including a plurality of additional satellite positions to generate at least a second set of ground tracks

disposed at at least a second longitude of symmetry.

6. A method of providing a coordinatable system of inclined geosynchronous satellite orbits, the method comprising:

specifying at least one geographic service within which satellite coverage is to be provided;

specifying a period during which satellite coverage is to be optimized;

defining a plurality of families of satellite orbits, each satellite orbit defining the path of a satellite position, each satellite orbit in each of the plurality of families of satellite orbits defining an orbital plane having a unique inclination with respect to the equatorial plane of the Earth and with respect to the orbital plane of any other one of the plurality of satellite orbits within the same family of satellite orbits, the plurality of satellite orbits within any one of the plurality of families of satellite orbits having identical apogees, loci of subsatellite points repeatedly traced upon the surface of the Earth by a straight line extending from the center of the Earth to an orbiting satellite position generating an imaginary ground track on the surface of the Earth, the ground track traced by orbiting satellite positions within any one of the plurality of families of satellite orbits defining an area therewithin that differs from the area defined within the ground track traced by orbiting satellite positions within any other family of satellite orbits;

configuring each satellite orbit in each of the plurality of families of satellite orbits so that the ground tracks are mutually and generally

symmetrically nested about a first longitude of symmetry to form a first set of ground tracks;

determining a maximum number of satellites, and thus of satellite orbits, that may be included in each of the plurality of families of satellite orbits and determining the shape and geographic position of each ground track to achieve minimum specified angular separation between satellite positions using the same frequencies and to achieve optimum satellite coverage during the specified period in the at least one service area specified; and

coordinating the position of satellites in satellite orbits in accordance with the determined maximum number of satellite positions and the minimum specified angular separation therebetween.

7. The method of claim 6, wherein the step of defining a plurality of families of satellite orbits, each orbit defining the path of a satellite position, further includes selecting an eccentricity for each satellite orbit that is high enough with respect to the inclination thereof so that a ground track traced by orbiting satellite positions within each family of satellite orbits does not cross itself.

8. The method of claim 7, following the step of determining a maximum number of satellites, further including the step o configuring each of the plurality of satellite orbits to position the maximum latitude of the ground track traced by orbiting satellite positions within each family of satellite orbits at a specified longitude.

9. The method of claim 8, wherein the step of coordinating the placement of satellites in satellite orbits further includes phasing the satellites in each of the families of satellite orbits so that they are equally spaced in time.

10. The method of claim 9, following the step of configuring each of the plurality of satellite orbits to position the maximum latitude of the ground track traced by orbiting satellite positions within each family of satellite orbits at a specified longitude, further including the step of including additional satellite positions to generate at least a second set of ground tracks disposed at at least a second longitude of symmetry.